SAMSUNG

SyncMaster 570P*plus* TFT
570P TFT
580P TFT
TFT-LCD Monitor

Owner's Instructions

Information in this document is subject to change without notice.
© 1999 Samsung Electronics Co., Ltd. All rights reserved.

Reproduction in any manner whatsoever without the written permission of Samsung Electronics Co., Ltd. is strictly forbidden.

Samsung Electronics Co., Ltd. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

The *Samsung logo* and *SyncMaster* are registered trademarks of Samsung Electronics Co., Ltd.; *Microsoft, Windows* and *Windows NT* are registered trademarks of Microsoft Corporation; *VESA, DPMS* and *DDC* are registered trademarks of Video Electronics Standard Association; the *ENERGY STAR* name and logo are registered trademarks of the U.S. Environmental Protection Agency (EPA). As an ENERGY STAR Partner, Samsung Electronics Co., Ltd. has determined that this product meets the ENERGY STAR guidelines for energy efficiency. All other product names mentioned herein may be the trademarks or registered trademarks of their respective owners.

Table of Contents

English

Safety Instructions 2
Unpacking Your Monitor 3
Setting up Your Monitor 4
- Setting up an Ergonomic Workstation 4
  - Monitor location 4
  - Workstation height 4
  - Viewing angle 4
- Kensington Security Slot 4
- Connecting Your TFT-LCD Monitor 5
- Connecting Your Multimedia TFT-LCD Monitor 6
- Plug and Play 7
- Installing the Video Driver 7
- Self-Test Feature Check (STFC) 8
- Getting Help 9
- Warm-up Time 9

Adjusting Your TFT-LCD 10
- User Controls 10
- Atomatic Save 11
- Direct-Access Features 11
  - Auto Adjustment 11
  - OSM Lock/Unlock 12
- On-Screen Menu System (OSM) 12
  - Brightness 12
  - Accessing the menu system 13
  - OSM functions and adjustments 13
- Audio Controls 18

Appendix 19
- PowerSaver 19
- Troubleshooting 20
- Specifications 24
- Pin Assignments 25
- Display Modes 26
- Changing the Base 27
  - Removing the base 27
  - Attaching a base 28
- Maintenance of Your TFT-LCD 28

index 29
Regulatory Information . . . . . See back of Manual

Safety Instructions

1. Before connecting the AC power cord to the DC adapter outlet, make sure the voltage designation of the DC adapter corresponds to the local electrical supply.
2. Never insert anything metallic into the openings in the cabinet of the liquid cristal display (TFT-LCD) monitor; doing so may create the danger of electric shock.
3. To avoid electric shock, never touch the inside of the TFT-LCD. Only a qualified technician should open the case of the TFT-LCD.
4. Never use your TFT-LCD if the power cord has been damaged. Do not allow anything to rest on the power cord, and keep the cord away from areas where people can trip over it.
5. Be sure to hold the plug, not the cord, when disconnecting the TFT-LCD from an electric socket.
6. Openings in the TFT-LCD cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Also, avoid using the TFT-LCD on a bed, sofa, rug, or other soft surface. Doing so may block the ventilation openings in the bottom of the cabinet. If you put the TFT-LCD in a bookcase or some other enclosed space, be sure to provide adequate ventilation.
7. Put your TFT-LCD in a location with low humidity and a minimum of dust.
8. Do not expose the TFT-LCD to rain or use it near water (in kitchens, near swimming pools, etc.). If the TFT-LCD accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the TFT-LCD with a damp cloth when necessary, but be sure to unplug the TFT-LCD first.
9. Place the TFT-LCD on a solid surface and treat it carefully. The screen is made of thin glass with a plastic front surface and can be damaged if dropped, hit or scratched. Do not clean the front panel with keton-type materials (e.g., acetone), ethyl alcohol, toluene, ethyl acid, methyl, or chloride – these may damage the panel.
10. Locate your TFT-LCD near an easily accessible AC outlet.
11. If your TFT-LCD does not operate normally – in particular, if there are any unusual sounds or smells coming from it – unplug it immediately and contact an authorized dealer or service center.
12. High temperature can cause problems. Don't use your TFT-LCD in direct sunlight, and keep it away from heaters, stoves, fireplaces, and other sources of heat.
13. Unplug the TFT-LCD when it is going to be left unused for an extended period of time.
14. Unplug your TFT-LCD from the AC outlet before any service.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

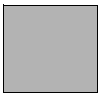
Unpacking Your Monitor

Please make sure the following items are included with your monitor. If any items are missing, contact your dealer.

Colorific
& Driver

Pivot software
(optional)

Warranty Card
(not available everywhere)



Manual

DC Adapter

Monitor and Base†

Monitor and Base†

Power Cord

15-pin D-Sub Signal Cable

Speaker Cable
(Optional)

Microphone Output Cable
(Optional)

RCA to Stereo Cable

† Your monitor may come equipped with one of five different stands, or none at all, according to the option you selected at the time of purchase. Contact your dealer if you want a different base.

Wire-frame base

Simple base

Angle-Pivot base

Multimedia base

Pivot Multimedia base

Setting up an Ergonomic Workstation

Consider the advice given below before you install your monitor.

Monitor location

Choose a position that exposes your monitor to the least reflection from lights or windows, usually at a right angle to any window.

Workstation height

Place your TFT-LCD monitor so that the top of the screen is slightly below your eye level when you are comfortably seated.

Viewing angle

Tilt the screen until you feel comfortable to work with your monitor. The best viewing angle can be obtained via AutoAngle™ provided by enclosed Colorific® software. Please install the program to get the best viewing angle adjustment..

Figure 1. Tilt the screen

Kensington Security Slot

This monitor offers you the opportunity to secure your monitor using a Kensington-type security device. Kensington lock is not included. Refer to your locking device documentation for installation instructions.

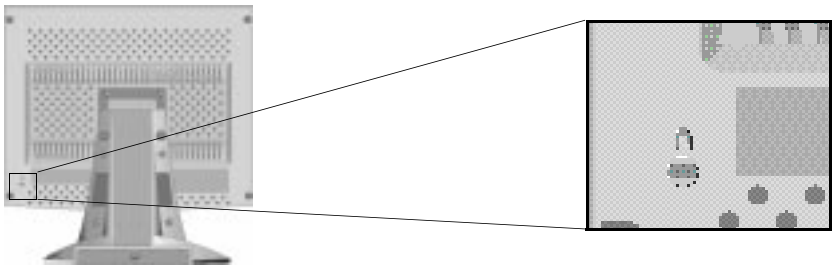


Figure 2. Kensington-type security slot location

Connecting Your TFT-LCD Monitor

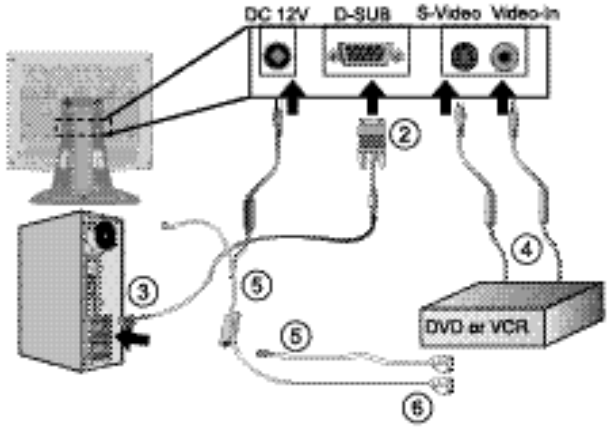


Figure 3. Cable connections

1 Turn off your computer and unplug its power cord.

2 Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.

3 Connect the signal cable to the video port on your computer, video board, video card, or graphics card.

4 Connect the RCA cable or S-VIDEO cable to DVD or VCR.

5 Connect the power cord of your monitor to the DC Adapter and connect the adapter jack to the DC power port on the back of your monitor.

6 Plug the compter and monitor power cords into a nearby power mains outlet.

7 Turn your computer and monitor on. If your monitor displays an image, it has been successfully installed.

8 If necessary, install the video driver for the monitor (see "Installing the Video Driver" on page 7).

9 After your monitor has been fully installed successfully, run Auto Adjustment (see page 11).

Connecting Your Multimedia TFT-LCD Monitor

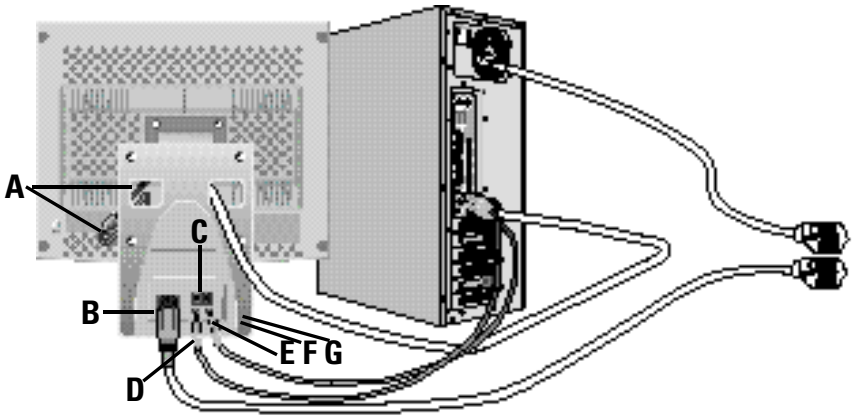


Figure 4. Multimedia connections

1. Follow steps 1 through 4 on the previous page.
2. If you have a Multimedia or Multimedia Pivot stand, connect the attached power adapter jack (A) to the DC power port on the back of your monitor. Connect the power cord to the power port on the back of the stand.
3. Follow the directions that came with your sound card or your computer to connect the speakers and microphone on the stand. See Figure 4, above and Table 1, below.
4. Continue from step 7 on the previous page.

Table 1. Connector locations for multimedia bases

Item	Name	Description
A	**Attached power adapter jack**	Connect this cable to the DC power port on the back of the monitor cabinet.
B	**Power port**	Connect the power cable here.
C	**Power switch**	Use this switch to turn the monitor On and Off.

Table 1. Connector locations for multimedia bases (*Continued*)

Item	Name	Description
D	**MIC OUT jack**	Connect a cable here to send sound from the internal microphone to the computer's sound card.
E	**AUDIO IN jack**	Connect a cable here to bring sound from your computer's sound card.
F	**External microphone jack**	Connect an external microphone here. Using an external microphone automatically disconnects the monitor's internal microphone.
G	**Headphone jack**	Connect headphones here. Connecting headphones automatically turns the speakers off.

Plug and Play

Our adoption of the new VESA® Plug and Play solution eliminates complicated and time consuming setup. It allows you to install your monitor in a Plug and Play compatible system without the usual hassles and confusion. Your PC system can easily identify and configure itself for use with your display. This monitor automatically tells the PC system its Extended Display Identification data (EDID) using Display Data Channel (DDC) protocols so the PC system can automatically configure itself to use the flat panel display. If your PC system needs a video driver, follow the instructions given below according to the operating system your computer uses.

Installing the Video Driver

Accompanied CD has necessary drivers for installing your monitor. For the driver installation, please refer to the driver installation instructions included with CD.

Self-Test Feature Check (STFC)

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark and the power indicator is blinking, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

If the monitor is functioning properly, you will see a white box and black text inside as shown in the following illustration:

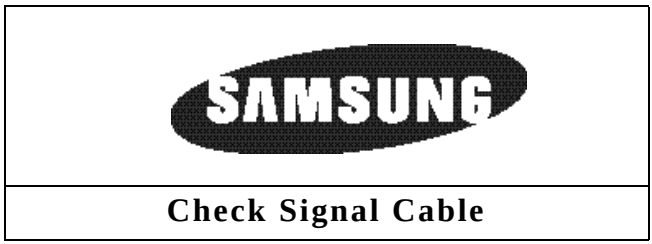


Figure 5. Monitor self test screen

This box appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after following the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Getting Help

If your monitor does not display an image, check your cable connections and refer to "Troubleshooting" on page 20. If you experience difficulties with the quality of the displayed image, run Auto Adjustment (see page 11) and refer to "Adjusting Your TFT-LCD" on page 10 or "Troubleshooting" on page 20.

Warm-up Time

All TFT-LCD monitors need time to become thermally stable the first time you turn them on each day. Therefore, to achieve more accurate adjustments for parameters, allow the TFT-LCD monitor to warm (be on) for at least 20 minutes before making any screen adjustments.

User Controls

Your TFT-LCD allows you to easily adjust the characteristics of the image being displayed. All of these adjustments are made using the control buttons on the front of the monitor. While you use these buttons to adjust the controls, an on-screen menu shows you their numeric values as they change.

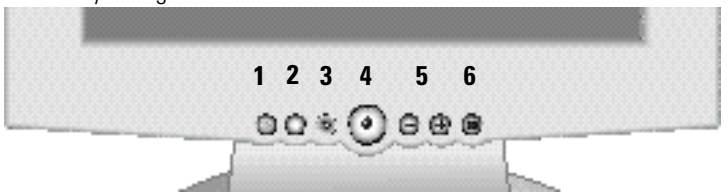


Figure 6. User control locations

No.	Name	Description
1	**AUTO**	■ Activates the Auto Adjustment function
2	**EXIT**	■ Exits from menus and sub-menus ■ Exits from the on-screen menu system (OSM) ■ Activates PIP and Video Display, when OSM is not on the screen.
3	**Power indicator**	■ Glows green during normal operation ■ Glows amber while the monitor is in a power saving mode and if the signal cable is disconnected
4	**Power button**	■ Turns the monitor on and off
5	**– / +** **Brightness**	■ Moves the selector between menus and sub-menus on the OSM ■ Decreases or increases values of the selected function ■ Directly adjusts the brightness level if pressed while the OSM is off (See the section on "Direct-Access Features" on page 11.)
6	**MENU**	■ Opens the OSM system and sub-menus ■ Selects the highlighted function

Automatic Save

Whenever you open the on-screen menu and allow an adjustment window to remain active for about 3 seconds without pressing another button, the monitor automatically saves any adjustments you have made. These changes are saved into a user area in the monitor. User areas are reserved according to the signal frequency from your computer. The monitor can save adjustments for up to 5 user modes. It has 12 factory preset or preload modes, one for each signal frequency as listed in "Display Modes" on page 26.

If you have made no adjustments, the on-screen menu disappears and the monitor does not save anything. To exit without saving the changes you have made, press the **EXIT** button before the 3 seconds elapse.

Direct-Access Features

The features described in this section can be accessed quickly, at the touch of one button. Once you finish making adjustments to a feature, push the **EXIT** button to turn off the menu or allow the OSM to time-out and disappear automatically

Auto Adjustment

Even though your computer system can recognize your new TFT-LCD monitor, the auto adjustment function will optimize the display settings for use with your computer.

Auto Adjustment

Access : Auto-Key

Follow these instructions to activate the automatic screen adjustments for your monitor.

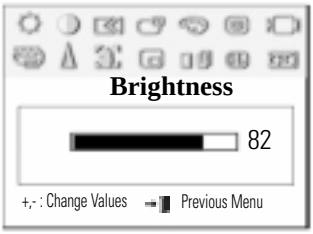
1 Press the **AUTO** button. The message "Auto Detect Image" appears.

2 Press the **AUTO** button again to perform auto adjustment.

NOTE: 1. For Auto Adjustment to function correctly, the monitor must display a full screen, colored image such as the Windows desktop.

2. Even though Auto Adjustment sets most image adjustments automatically, distortions may remain depending on the video board performance. After using Auto Adjustment, we recommend that you fine tune the screen by using the OSM functions.

Brightness



Follow these instructions to adjust the brightness .

1. With the menu off, push the "**–**" or "**+**" button to display the brightness adjustment menu.
2. Push the "**+**" button to increase the brightness; push the "**–**" button to decrease the brightness.

OSM Lock/Unlock

Use this function to prevent the current settings but Brightness and Contrast from being changed inadvertently. Brightness and Contrast are adjustable while OSM is in Lock state. You can Lock or Unlock the OSM controls by following the procedure described below.

1. Keep pressing **MENU** button more than 5 seconds.
2. Use "**-**" and "**+**"to navigate through OSM. Small locks appear indicating that the setting is locked.

On-Screen Menu System (OSM)

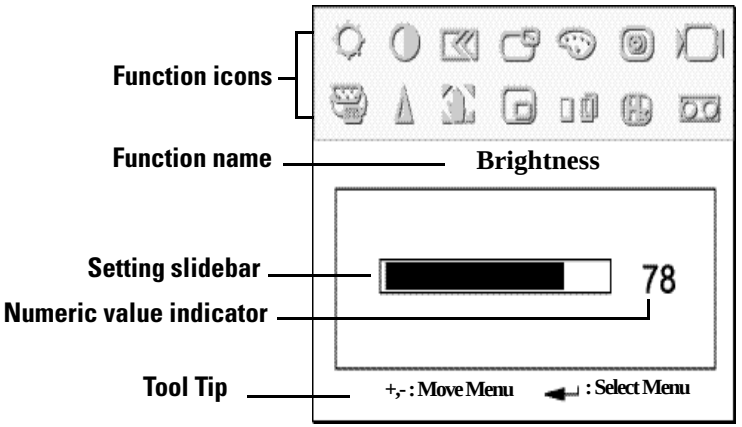


Figure 7. On-Screen Menu (OSM)

Accessing the menu system

1. With the OSM off, push the **MENU** button to open it and display the main OSM menu.
2. Use the "**–**" and "**+**" buttons to move between the function icons. As you move from one icon to another, the function name changes to reflect the function or group of functions represented by that icon. See the Screen controls table to view a complete list of all the functions available for the monitor.
3. Press the **MENU** button once to activate the highlighted function then follow the Tool Tips to select the function and adjust the value.
4. After selecting a function, use the "**–**" and "**+**" buttons to make the adjustments. The setting slidebar moves and the numeric value indicator changes to reflect your adjustments.

   NOTE: The numeric value indicator is provided as a point of reference only and does not reflect any measureable value.

5. Push the **EXIT** button once or twice to return to the main menu to select another function or push the **EXIT** button 1 to 3 times to exit from the OSM.

OSM functions and adjustments

Table 2. Screen controls

Icon	Menus and Sub-menus	Function Descriptions –	Function Descriptions +
☼	**Brightness**		
◑	**Contrast**		

Table 2. Screen controls (*Continued*)

<table>
<tr><th>Icon</th><th>Menus and Sub-menus</th><th colspan="2">Function Descriptions
– +</th></tr>
<tr><td></td><td>Image Lock:</td><td colspan="2">Image Lock is used to fine tune and get the best image by removing noises that delivers unstable images with jitters and shimmers.</td></tr>
<tr><td rowspan="3"></td><td rowspan="3">■ Fine
■ Coarse</td><td colspan="2">The Fine and Coarse adjustments allow you to fine tune the image quality of your monitor to your preference. Use the "–" and "+" buttons to remove any noise.
If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.
This function may change the width of the display image. Use the H-Position menu to center the display image on the screen.</td></tr>
<tr><td>Fine</td><td>Coarse</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td rowspan="2"></td><td>Position</td><td colspan="2">Moves the position of the image to horizontal or vertical direction.</td></tr>
<tr><td>H-Position</td><td> </td><td> </td></tr>
</table>

Table 2. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions – +
	V-Position	
	Color	The tone of color can be changed from bluish white to reddish white that is from Cool to Warm respectively. The individual color components are also user customizable. Mode 1 : Bluish white Mode 2 : White Mode 3 : Reddish White
	Image size	The size of the image being displayed can be handled in several different ways. Expanded 1: Resize the image to fill the whole screen. Expanded 2: Keep the aspect ratio of the incoming image. Normal: Display the incoming image as it is.
	Recall	Monitor parameters are replaced with factory default values by this function. Color : Color parameters are replaced with the factory default values. Geometry : Position and Image Lock parameters are replaced with the factory default values.

Table 2. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions – +
	Input Source	Select the source of the video signal. RGB : PC signal is selected. (15-pin D-sub) Video : VCR signal is selected. (RCA connector is supposed to be connected to a VCR). S-Video : S-Video signal from VCR or DVD or other A/V devices are selected. (S-Video connector is supposed to be connected to a A/V devices)
	Sharpness	Image being displayed can be soften or sharpen. Sharp : Sharpen the images. Medium : Show the images as they are. Soft : Soften the image.
	Zoom/Pan	The image can be zoomed up to 64 times of the original image and the zoomed image can be panned as well. Zoom : Magnify the image H-Pan : Move the zoomed image horizontally V-Pan : Move the zoomed image vertically
	PIP	When the monitor is connected to an external A/V devices such as VCR or DVD whose output connectors are RCA or S-VIDEO, PIP functions can be used to watch movies while you are working. Source:Select PIP source. – off : No Selecton – 1 : Video – 2 : S-VIDEO H-position : Move PIP window to the horizontal direction V-position : Move PIP window to the vertical direction

Table 2. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions – +
	Menu Control	OSD language and appearance can be changed. Language : English/Deutsch/Español/Français/Italiano/ Swedish Halftone : Change the transparency of OSD Menu Position : H-Position : -> Move the OSD window to the horizontal direction V-Position : -> Move the OSD window to the vertical direction Menu Duration : The unit is seconds and after passing the indicated time, the OSD menu Disappears : 5/10/20/50/200 seconds
	Information	Displays current display mode and frequencies
	Video Control	This function is active only if the monitor is connected to an external A/V device. Brightness : Change the luminance of the images. Hue : Change the tone of color Saturation : Change the richness of color Contrast : Change the ratio blackness and the whiteness of the images.

Audio Controls

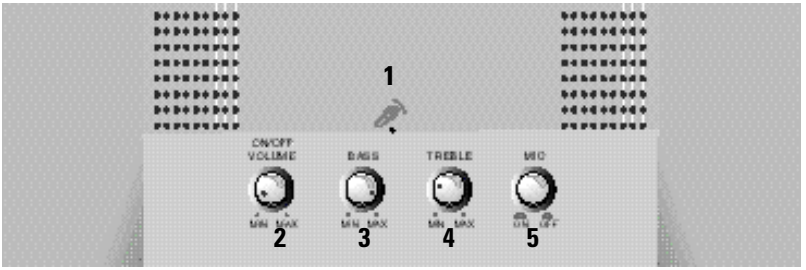


Figure 8. Multimedia stand audio controls

To access the On/Off, Volume, Bass and Treble functions, rotate the appropriate control button to the right or left to adjust the function.

Table 3. Audio Control Function

No.	Function	Description and adjustments	
1	**Internal Microphone**	Picks up sound and sends it to the sound card in your PC	
2	**On/Off Volume**	Turns the sound on and off	
		■ Left: Off/ Decrease volume	■ Right: On/ Increase volume
3	**Bass**	Adjusts the volume of the low sound	
		■ Left: Decrease volume	■ Right: Increase volume
4	**Treble**	Adjusts the volume of the high sound	
		■ Left: Decrease volume	■ Right: Increase volume
5	**Mic On/Off**	Turns the internal microphone on or off. Push the button:	
		■ In: Off	■ Out: On

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The available modes are "On", "Standby", "Sleep", and "Deep Sleep".

PowerSaver operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature. See Table 4 below for details.

Table 4. Power-saving modes

State	Normal Operation	Power-Saving Function mode (EPA/NUTEK)		
		Standby Mode	Sleep Mode Position A1	Deep Sleep Mode Position A2
Horizontal Sync Vertical Sync Video	Active Active Active	Inactive Active Blanked	Active Inactive Blanked	Inactive Inactive Blanked
Power Indicator	Green	Amber	Amber Blinking (0.5 sec interval)	Amber Blinking (1 sec interval)
Power Consumption	570P Plus : 35W (Nom.) 570P/580P : 25W (Nom.)	Less than 6W	Less than 3W	Less than 3W

NOTE: This monitor automatically returns to normal operation when horizontal and vertical sync return. This occurs when you move the computer's mouse or press a key on the keyboard.

This monitor is EPA ENERGY STAR ® compliant and NUTEK compliant when used with a computer equipped with VESA DPMS functionality.

For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

Troubleshooting

If you have a problem setting up or using your TFT-LCD monitor, you may be able to solve it yourself. Before contacting customer service, try the suggested actions that are appropriate to your problem.

Table 5. Troubleshooting problems – Image

What you see...	Suggested Action	Reference
Screen is blank and power indicator is off	■ Ensure that the power cord is firmly connected and the TFT-LCD monitor is on.	Connecting your TFT-LCD Monitor, page 5.
"Check Signal Cable" message	■ Ensure that the signal cable is firmly connected to the PC or video board. ■ Ensure that the PC is turned on.	Connecting your TFT-LCD Monitor, page 5.
"Sync Out of Range" message	■ Check the maximum resolution and the frequency on the video port of your computer. ■ Compare these values with the data in the Display Modes Timing Chart.	Display Modes, page 26.
The image is too light or too dark	■ Adjust the Brightness and Contrast.	Brightness, page 12 and page 13. Contrast, page 13.
Horizontal bars appear to flicker, jitter or shimmer on the image	■ Adjust the Fine function.	Image Lock, Fine, page 14.
Vertical bars appear to flicker, jitter or shimmer on the image.	■ Adjust the Coarse function and then adjust the Fine function.	Image Lock, Coarse, page 14. Image Lock, Fine, page 14.
Screen is blank and power indicator light is steady amber or blinks every 0.5 or 1 seconds	■ The monitor is using its power management system. ■ Move the computer's mouse or press a key on the keyboard	PowerSaver, page 19.

Table 5. Troubleshooting problems – Image (*Continued*)

What you see...	Suggested Action	Reference
Image is not stable and may appear to vibrate	■ Check that the display resolution and frequency from your PC or video board is an available mode for your monitor. On your computer check: Control Panel, Display, Settings	Display Modes, page 26.
	■ If the setting is not correct, use your computer utility program to change the display settings.	Installing the Video Driver, page 7.
	NOTE: Your monitor supports multiscan display functions within the following frequency domain:	
	■ Horizontal frequency: ■ Vertical frequency: ■ Maximum refresh rate:	30 kHz – 80 kHz 50 Hz – 85 Hz 1280 x 1024 @ 75 Hz
Image is not centered on the screen.	■ Adjust the horizontal and vertical position.	H-Position, page 14. V-Position, page 15.
You need the monitor driver software	■ Download the driver from the internet at: http://samsungelectronics.com/support/downloads/monitor/index.html	

Table 6. Troubleshooting problems – Audio

Problem	Suggested Action	Reference
No sound	■ Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and to the audio–out port on your sound card or computer.	Connecting your Multimedia Monitor, page 6.
	■ Rotate the Audio On/Off and Volume control to the right to turn it on and raise the volume.	Audio Controls, page 18.
Sound level is too low	■ Rotate the Audio On/Off and Volume control to the right to raise the volume.	Audio Controls, page 18.
	■ If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.	Refer to your computer, sound card or software documentation.
Howling effect occurs	■ Decrease the volume slightly. ■ If you are using an external microphone, move it away from the speakers and adjust the volume level.	Audio Controls, page 18.
Sound is too high pitched or too low pitched	■ Adjust the Treble and Bass as appropriate.	Audio Controls, page 18.

Table 6. Troubleshooting problems – Audio

Problem	Suggested Action	Reference
Microphone is not working	■ Check the microphone cable connection.	Connecting your Multimedia Monitor, page 6.
	■ Your sound card must be compatible with an internal, embedded microphone. If it is not, use the microphone that came with your computer or sound card.	Your computer or sound card documentation.

Specifications

Table 7. Technical and environmental specifications

Panel	Size Display Size Type Pixel pitch Viewing Angle	15.0" Diagonal 304.1 (H) x 228.1 (V) mm a-si TFT active matrix 0.297 (H) x 0.297 (V) mm 70/70/60/60 (L/R/U/D): min. (Depending on the panel manufacturer, the viewing angle may be different from this spec.)
Frequency	Horizontal Vertical Display color	30 – 80 kHz (Automatic) 50 – 85 Hz (Automatic). (based on XGA) 16,777,216 colors
Display Resolution	Optimum Mode Maximum Mode	1024 x 768 @ 60 Hz 1280 x 1024 @ 75 Hz
Input Signal	Sync Video signal	H/V Separate, TTL, P. or N. H/V Composite, TTL, P. or N. Sync-on-green 0.3 Vp-p, N. 0.7 Vp-p @ 75 ohm, P.
Power Supply		AC 90-264 Volt, 60 Hz / 50Hz to 12V/3A
Power Consumption	Normal Power Saving	570P Plus : 35W 570P/580P : 25W Less than 3 W
Dimensions / Unit Weight / incl. Carton	Unit (WxHxD) with: Simple base: MultiMedia base: Pivot MM base: Angle-Pivot base: Wire-frame base: Carton (WxHxD)	 385.4 x 364.7 x 173 mm / 5.20Kg / 8.4Kg 385.4 x 406.2 x 179 mm / 5.95Kg / 9.6Kg 385.4 x 406.2 x 179 mm / 5.95Kg / 9.6Kg 385.4 x 431.6 x 178.9 mm / 6.6Kg / 9.8Kg 385.4 x 339.2 x 79.7 mm / 4.4Kg / 7.6Kg 475 x 282 x 510 mm
Environmental Considerations	Operating Temperature Operating Humidity Storage Temperature Storage Humidity	50 °F to 104 °F (10 °C to 40 °C) 10% to 80% 13 °F to 113 °F (-25 °C to 45 °C) 5% to 95%
Audio Characteristics (Available with Multimedia bases only)	Built-in Mic. Audio Input Sound Output Frequency Response Headphone	High Sensitivity Condenser Mic. (mono) L/R Stereo Phone Jack, 0.5 Vrms 1.0 W (L) + 1.0 W (R)/THD 1% at 8 ohm 80 Hz - 20 KHz (at -3dB) Max 50 mW output (3.5 – pi jack)

Pin Assignments

Table 8. 15 pin D-sub connector

Pin	Separate H/V	Composite H/V	Sync-on-green
1	Red	Red	Red
2	Green	Green	Green + H/V Sync
3	Blue	Blue	Blue
4	GND	GND	GND
5	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)
6	GND-Red	GND-Red	GND-Red
7	GND-Green	GND-Green	GND-Green
8	GND-Blue	GND-Blue	GND-Blue
9	No Connection	No Connection	Not used
10	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND	GND
12	DDC Data	DDC Data	DDC Data
13	Horizontal Sync	H/V Sync	Not used
14	Vertical Sync	Not used	Not used
15	DDC Data	DDC Data	DDC Data

Display Modes

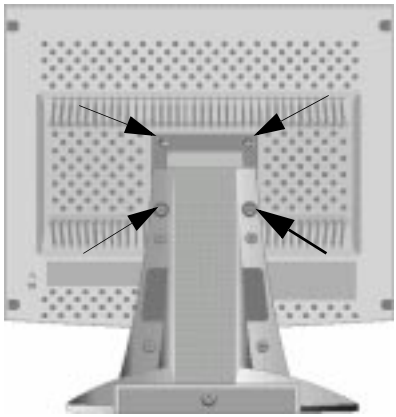
For the display modes listed below, the screen image has been optimized during manufacture.

Table 9. Preset timing modes

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VGA	640 x 350	31.47	70.00	25.175	+/–
	640 x 350	37.86	85.00	31.500	+/–
	720 x 400	31.47	70.00	28.322	–/+
	720 x 400	37.93	85.00	35.500	–/+
	640 x 480	31.47	60.00	25.175	–/–
	640 x 480	35.00	66.70	30.240	–/–
	640 x 480	37.86	72.80	31.500	–/–
	640 x 480	37.50	75.00	31.500	–/–
	640 x 480	43.27	85.00	36.000	–/–
SVGA	800 x 600	35.16	56.30	36.000	–, + / –, +
	800 x 600	37.88	60.30	40.000	+/+
	800 x 600	48.08	72.20	50.000	+/+
	800 x 600	46.87	75.00	49.500	+/+
	800 x 600	53.67	85.10	56.250	+/+
	832 x 624	49.73	74.60	57.290	–/–
XGA	1024 x 768	48.36	60.00	65.000	–/–
	1024 x 768	56.40	70.10	75.000	–/–
	1024 x 768	60.02	75.00	78.750	+/+
	1024 x 768	68.67	85.00	94.500	+/+
SXGA	1280 x 1024	64.00	60.00	108.000	–/–
	1280 x 1024	79.98	75.00	135.000	+/+

Changing the Base

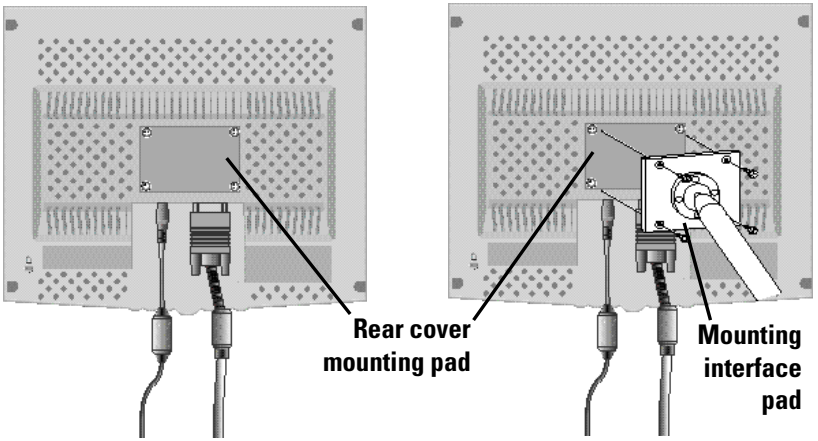
Removing the base



1. Turn off your monitor and unplug its power cord.
2. Lay the TFT-LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.
3. Remove the four screws and then remove the Base from the TFT-LCD monitor.

Attaching a base

NOTE: This monitor accepts a 75mm x 75mm VESA-compliant mounting interface pad.



1 Align the Mounting Interface Pad with the holes in the Rear Cover Mounting Pad and secure it with the four screws that came with the arm-type base, wall mount hanger or other base.

Maintenance of Your TFT-LCD

WARNING: To avoid risk of electric shock, do not disassemble the monitor cabinet (except for gaining access to the cable connectors as described on page 6). Users cannot service the monitor. User maintenance is restricted to cleaning as explained below:

Unplug the monitor from the power outlet before cleaning.

- To clean your flat panel display screen, lightly dampen a soft, clean cloth with water or mild detergent. If possible, use a special screen cleaning tissue or solution suitable for the antistatic coating.
- To clean the monitor cabinet, use a cloth lightly dampened with a mild detergent.
- Never use flammable cleaning material to clean your TFT-LCD or any other electrical apparatus.

Index

Symbols
= /+ 10

Numerics
15-pin D-sub connector 25

A
Angle-Pivot base 3
Audio controls 18
Auto adjustment 11
AUTO button 10
Automatic save 11

B
Base 3
Bass 18
Brightness 10, 13
Buttons

C
Cable connections 5
Coarse 14
Contrast 13

D
DC adapter 3
Deep sleep mode 19
Display Modes 26

E
EXIT 10
EXIT button 13

F
Fine 14

G
Getting help 9

H
H-position 14

I
IC compliance notice 4
Image lock 14
Internal microphone 18

K
Kensington security slot 4

M
MENU 10
MENU button 12, 13
Mic 18
Microphone 18
Multimedia base 3
Multimedia connections 6
Multimedia pivot base 3

O
On-screen menu (OSM) 12
On-Screen Menu System 12
OSM lock/unlock 12

P
Plug and play 7
Power button 10
Power indicator 10
Preset timing modes 26

S
Safety instructions 2
Screen controls 13
Security slot 4
Self-test feature check 8
Simple base 3
Sleep mode 19
Standby mode 19
STFC 8

T
Tilt the screen 4
Treble 18
Troubleshooting 20

V
Volume 18
V-position 15

W
Warm-up time 9
Wire-frame base 3

Regulatory Information

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.

Declaration of conformity for products Marked with FCC Logo

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
85 West Tasman Drive
San Jose, CA 95134 USA
Tel) 408-544-5124
Fax) 408-544-5191
Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numérique de classe B respecte toutes les exigences du Règlemont ICES-003 sur les équipements produisant des interférences au Canada.

MPR II Compliance

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

- EN55022 (CISPR 22) – Radio Frequency Interference
- EN50082-1 : 1992 – Electromagnetic Immunity
- EN60555-2 (IEC555-2) – Power Line Harmonics
- EN60555-3 (IEC555-3) – Voltage Fluctuations
- EN60950 (IEC950) – Product Safety.

U.S.A.:
Samsung Electronics America (SEA)
One Samsung Place
Ledgewood, NJ 07852
Tel.: 1-800-SAMSUNG (1-800-726-7864)

CANADA:
Samsung Electronics Canada Inc.
7037 Financial Drive
Mississauga, Ontario L5N 6R3
Tel.: 1-800-SAMSUNG (1-800-726-7864)
Fax.: (905) 542-1199

GERMANY:
Samsung Electronics GmbH Samsung-Haus
Am Kronberger Hang 6/65824 Schwalbach/Ts.
Tel.: 06196-66-1134
Fax.: 06196-66-1133

AUSTRALIA:
Samsung Electronics Australia Pty Ltd.
Unit G, 10-16 South Street,
Rydalmere, N.S.W. 2116
P.O. BOX 368
Tel.: (02) 638 5200

ITALIA:
Samsung Electronics Italia SpA
Via C. Donat Cattin,
5-20063 Cernusco sul Naviglio (Mi)
Tel.: 167-010740

PANAMA:
Servicios Samsung (Zona Libre), S.A.
50 and 61 Streets Sta, Cecilia
Bdl. Don Camilo, Panama City
Tel.: (507) 264-0195 or 269-5571
Fax: (507) 269-5568

MEXICO:
Samsung Electronics Mexico S.A. de C.V.
Saturno 44 Col. Nva. Industrial Vallejo
Del. Gustavo A. madero C.P. 07700
Mexico D.F. Tel. 5747-5100
RFC: SEM950215S98

ESPAÑA:
Samsung Electrónics Comercial Ibérica, S.A.
Ciencies, 55-65 (Polígono Pedrosa) 08908 Hospitalet de Llobregat (Barcelona)
Tel.: (93) 261 67 00
Fax.: (93) 261 67 50

UK:
Samsung Electronics (UK) Ltd.
Samsung House, 225 Hook Rise South
Surbiton, Surrey KT6 7LD
Tel.: (0181) 391 0168
Fax.: (0181) 397 9949
<European Service Center & National Service>
Stafford Park 12 Telford, Shropshire, TF3 3BJ
Tel.: (01952) 292 262
Fax.: (01952) 292 033

THAILAND:
Samsung Service Center
729-729/1 JSP Tower Rachadapisek RD.,
Bangpongpang, Yannawa, Bangkok 10120
Tel: (662) 2954508-14
Fax: (662) 2954267

SOUTH AFRICA:
Samsung Electronics South Africa
Somerset Office Park 5 Libertas Road
Bryanston, South Africa
Tel: (27)-11-463-5678
Fax: (27)-11-463-5215

BRASIL:
Samsung Eletrônica da Amazonia Ltda.
R. Prof. Manoelito de Ornellas, 303-2º Andar
Chácara Sto. Antônio • cep: 04719-040
São Paulo • SP
Tel.: (011) 541-8500
Fax: (011) 523-3995, 522-0726

SWEDEN:
Samsung Electronics Svenska, AB
Box 713, S-194 27 Upplands Vasby
Tel: (468) 590-966-00
Fax: (468) 590-966-50

"As an ENERGYSTAR® Partner, SAMSUNG has determined that this product meets the ENERGYSTAR® guidelines for energy efficiency."

CODE NO. : BN68-00081A (Rev. 0.2)

Printed on recyclable paper